



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/543,051	07/21/2005	Manabu Iwamoto	590157-2024	5677
7590	06/01/2010		EXAMINER	
Matthew K Ryan Frommer Lawrence & Haug 745 Fifth Avenue New York, NY 10151			CULLER, JILL E	
			ART UNIT	PAPER NUMBER
			2854	
			MAIL DATE	
			06/01/2010	PAPER
			DELIVERY MODE	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* MANABU IWAMOTO and KENJI OSHIMA

---

Appeal 2009-004015  
Application 10/543,051  
Technology Center 2800

---

Decided: May 28, 2010

---

Before JOHN C. KERINS, STEVEN D.A. McCARTHY and MICHAEL W. O'NEILL, *Administrative Patent Judges*.

KERINS, *Administrative Patent Judge*.

DECISION ON APPEAL

## STATEMENT OF THE CASE

Manabu Iwamoto and Kenji Oshima (Appellants) seek our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 7, 9, 11 and 12. The remaining pending claims, i.e., claims 8, 10, 13 and 14 have been indicated as being allowable. We have jurisdiction under 35 U.S.C. § 6(b) (2006).

## SUMMARY OF DECISION

We REVERSE and enter a NEW GROUND OF REJECTION  
PURSUANT TO OUR AUTHORITY UNDER 37 C.F.R. § 41.50(b).

## THE INVENTION

Appellants' claimed invention is to an ink supply system in which an ink container has a storage means provided thereon, and the storage means provides numeric information to an empty ink container recognizing means for setting an inkless time. Claims 7 and 11 are reproduced below, and are illustrative of the overall claimed subject matter:

7. An ink supply system, comprising:  
an ink supply means which supplies ink in an ink container to an ink fountain where the ink is temporarily stored between a first point in time when the ink is discharged from the ink container and a second point in time when the ink is supplied to an inner peripheral surface of a printing drum;

an ink amount detecting means which outputs an ink supply starting signal when the amount of ink in the ink fountain supplied by the ink supply means becomes smaller than a predetermined first threshold value and an ink supply terminating

signal when the amount of ink in the ink fountain becomes not smaller than a predetermined second threshold value;

a time measuring means which measures an elapsed time from the time the ink supply starting signal is output from the ink amount detecting means;

an empty ink container recognizing means which recognizes that the ink container is exhausted when the elapsed time measured by the time measuring means becomes longer than a predetermined inkless time before the ink supply terminating signal is output; and

an ink supply control means which starts the ink supply means supplying the ink in response to the ink supply starting signal and stops the ink supply means from supplying the ink in response to the ink supply terminating signal,

wherein the improvement comprises that the empty ink container recognizing means reads out numeric information from a storage means which is provided on the ink container to store numeric information for setting an inkless time corresponding to the kind of ink in the ink container, and sets the inkless time on the basis of the numeric information.

11. An ink container which is used for carrying out an ink supply method where supply of ink from an ink container to an ink fountain where the ink is temporarily stored between a first point in time when the ink is discharged from an ink container and a second point in time when the ink is supplied to the inner peripheral surface of a printing drum is started when the amount of ink in

the ink fountain becomes smaller than a first threshold value and is terminated when the amount of ink in the ink fountain becomes not smaller than a second threshold value after the supply of ink is started, the elapsed time from the start of the supply of ink is measured, it is recognized that the ink container is exhausted when the measured elapsed time from the start of the supply of ink becomes longer than a predetermined inkless time before the amount of ink in the ink fountain becomes not smaller than the second threshold value after the supply of ink is started, a numeric information is read out from a storage means which is provided on the ink container to store a numeric information for setting an inkless time corresponding to the kind of ink in the ink container, and the inkless time is set on the basis of the numeric information, comprising a storage means which stores the numeric information for setting an inkless time corresponding to the kind of ink therein.

#### NEW GROUNDS OF REJECTION

Section 41.50(b) of Title 37 of the Code of Federal Regulations confers authority on the Board to reject any pending claim for which the Board has knowledge of any grounds of rejection not on appeal. 37 C.F.R. § 41.50(b) (2009). Under this authority, we enter new grounds of rejection directed to claims 7, 9, 11 and 12.

##### *Claims 7 and 9--Indefiniteness*

Claims 7 and 9 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to distinctly claim the subject matter which Appellants regard as their invention. Claim 7 recites “an empty ink container recognizing means which recognizes that the ink container is

exhausted . . . ”, and which “reads out numeric information from a storage means . . .”. (Appeal Br., Claims Appendix). Claim 9 depends from claim 7 and contains the same claim element.

Once a conclusion is reached that a claim limitation is a means-plus-function limitation, two steps of claim construction remain: 1) the function of the limitation must be identified; and 2) the Specification must be reviewed to identify the corresponding structure for that function.

*Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1210 (Fed. Cir. 2003). “If there is no structure in the specification corresponding to the means-plus-function limitation in the claims, the claim will be found invalid as indefinite.” *Biomedino, LLC v. Waters Technologies Corp.*, 490 F.3d 946, 950 (Fed. Cir. 2007).

Turning to the present Specification, we find no disclosure of any underlying structure corresponding to the recited function set forth in claim 7 directed to recognizing that the ink container is exhausted and directed to reading out numeric information from a storage means. The text of the Specification does nothing more than employ the identical language appearing in claim 7. (Spec., *passim*). The drawings are equally unavailing, illustrating this means in the form of a black box labeled “60”, having the claim term “empty ink container recognizing means” appearing therein. (See, e.g., Fig. 1). Accordingly, we find that this means-plus-function limitation of claim 7 lacks sufficient corresponding structure under 35 U.S.C. § 112, sixth paragraph. As such, claim 7, and claim 9 depending therefrom, are indefinite under 35 U.S.C. § 112, second paragraph. *See In re Donaldson*, 16 F.3d 1189, 1195 (Fed. Cir. 1994) (en banc); *Aristocrat Technologies v. IGT*, 521 F.3d 1328, 1331 (Fed. Cir. 2008).

*Claims 11 and 12--Single Means Claims*

When a claim uses the term "means" to describe a limitation, a presumption inheres that the inventor used the term to invoke 35 U.S.C. § 112, sixth paragraph. *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1375 (Fed. Cir. 2003). "This presumption can be rebutted where the claim, in addition to the functional language, recites structure sufficient to perform the claimed function in its entirety." *Id.* In the present case, though, no additional structure is recited in claim 11 for the storage means. As such, we conclude that Appellants have used the term "means" to invoke § 112, sixth paragraph.

Claim 11, then, is a "single means" claim: "a claim drafted in 'means-plus-function' format yet reciting only a single element instead of a combination" (*see In re Hyatt*, 708 F.2d 712, 713 (Fed Cir. 1983)). Claim 11 is directed to an "ink container . . . comprising a storage means which stores" numeric information. The entire remainder of the claim is directed to method or process steps for an ink supply method for which the claimed ink container is intended to be used. Claim 11 is therefore rejected as non-enabled for undue breadth under 35 U.S.C. § 112, first paragraph. *See Hyatt*, 708 F.2d at 714-15 (holding that single means claims are subject to rejection under 35 U.S.C. § 112, ¶ 1 for insufficient disclosure because the claim "covers every conceivable means for achieving the stated result, while the specification discloses at most only those means known to the inventor"). Claim 12 depends from claim 11, but fails to add any additional means or structure to the claimed invention. Claim 12 is thus rejected on the same basis.

## THE APPEALED REJECTION

The Examiner has rejected claims 7, 9, 11 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Hara (US 5,699,731, issued December 23, 1997) in view of Foerster (US 4,639,776, issued January 27, 1987).

Normally, when substantial confusion exists as to the interpretation of a claim and no reasonably definite meaning can be ascribed to the terms in a claim, a determination as to patentability under 35 U.S.C. § 103 is not made. *See In re Steele*, 305 F.2d 859, 862 (CCPA 1962); *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970). However, in this instance, we consider it to be desirable to avoid the inefficiency of piecemeal appellate review. *See Ex parte Ionescu*, 222 USPQ 537, 540 (Bd. App. 1984). Therefore, in the interest of judicial economy, we will address the rejection under 35 U.S.C. § 103(a).

## ISSUE

Did the Examiner err in concluding that a combination of the teachings of the Hara and Foerster patents renders obvious the subject matter of claims 7, 9, 11 and 12?

## ANALYSIS

The Examiner takes the position that the Hara patent discloses each and every element presented in claims 7, 9, 11 and 12, with the exception of a teaching that an empty ink recognizing means reads out numeric information from a storage means which is provided on the ink container to store such numeric information. (Answer 4). The Examiner found that the Foerster patent discloses an ink supply system which reads numerical data

from a storage means 6 that is provided on ink container 5 to store such data. (Answer 5). The Examiner concluded that it would have been obvious to modify the Hara ink supply system to include data storage means on the ink container(s) therein, in view of Foerster, in order to be able to use the numerical data stored in the storage means to operate more accurately. (*Id.*).

Appellants contend that Foerster does not teach or suggest reading numeric information from a storage means on an ink container to set the inkless time, and that the combination of teachings of Hara and Foerster does not render obvious the claimed invention. (Appeal Br. 8). We agree.

Foerster discloses the use of data receivers 6, one of which is illustrated in Figure 1, that are arranged adjacent to ink zone screws or ink keys 4 of ink containers 5. (Foerster, col. 2, ll. 20-27; Fig. 1). The data receivers supply actual values (as contrasted with nominal values) of parameters such as density values, setting and position values, and tolerance values. (*Id.*). Foerster thus does not specifically disclose that the data receivers are provided on the ink containers, only that they are adjacent to the ink keys of the ink containers. Although somewhat schematic in nature, Figure 1 of Foerster is indicative that the data receivers are not provided on the ink containers. The Examiner has not provided evidence or reasoning that supports a finding that the data receivers are on the ink containers.

Moreover, the data receivers of Foerster do not appear to be means for storing numeric information for setting an inkless time, as is also called for in the claims. As noted above, the data receivers are employed to provide actual values of certain types of process parameters.

We are persuaded that the Examiner erred in concluding that the combination of the teachings of Foerster and Hara would have rendered

Appeal 2009-004015  
Application 10/543,051

obvious the subject matter of claims 7, 9, 11 and 12. The rejection will not be sustained.

## CONCLUSION

The rejection of claims 7, 9, 11 and 12 under 35 U.S.C. § 103(a) over Hara in view of Foerster will not be sustained.

## DECISION

The decision of the Examiner to reject claims 7, 9, 11 and 12 under 35 U.S.C. § 103(a) is reversed.

Claims 7 and 9 are rejected, in a new ground of rejection, under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claims 11 and 12 are rejected, in a new ground of rejection, under 35 U.S.C. § 112, first paragraph, for lack of enablement as being single means claims of undue breadth.

This decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b) (2007). Section 41.50(b) provides “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

Section 41.50(b) also provides that Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner . . .

Appeal 2009-004015  
Application 10/543,051

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

**REVERSED; 37 C.F.R. § 41.50(b)**

Klh

MATTHEW K. RYAN  
FROMMER LAWRENCE & HAUG  
745 FIFTH AVENUE  
NEW YORK, NEW YORK 10151